Donald Abelson
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Dear Mr. Abelson:

The National Telecommunications and Information Administration on behalf of the Executive Branch Agencies, has approved the release of an additional Draft Executive Branch (NTIA) proposal considering federal agency inputs toward the development of U.S. Proposals for WRC-03.

The attached proposal addresses agenda item 1.4, which is concerned with ITU Resolution **114** and review of the allocations to the aeronautical radionavigation service and the fixed-satellite service in the band 5 091-5 150 MHz. This proposal is forwarded for review by your WRC-03 Advisory Committee. Karl Nebbia from my staff will contact Julie Garcia and reconcile any differences.

Sincerely,

(Signed October 23, 2001)
William T. Hatch
Associate Administrator
Office of Spectrum Management

Enclosure

United States of America

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 1.4: to consider the results of studies related to **Resolution 114 (WRC-95)**, dealing with the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to non-GSO MSS feeder links), and review the allocations to the aeronautical radionavigation service and the fixed-satellite service in the band 5 091-5 150 MHz;

Background Information: The frequency band 5 000-5 250 MHz is allocated on an international basis to the aeronautical radionavigation service (ARNS). Currently only the 5 030-5 150 MHz portion has a defined ARNS function; namely the microwave landing system (MLS), with only the 5 030-5 091 MHz portion containing defined MLS channels. However, ICAO has identified the band 5 091-5 150 MHz for expansion for MLS. In addition, the aviation community is exploring other applications in the 5 091 - 5 150 MHz band. The fixed satellite service (FSS) (Earth-to-space), limited to non-geostationary mobile-satellite service (MSS) feeder links, is also allocated to the band 5 091-5 150 MHz in accordance with **S5.444A**. Also, the fixed-satellite service is allocated on a primary (Earth-to-space) in the band 5 150-5 250 MHz for the use of feeder uplinks for Non-Geostationary Mobile Satellite Service systems (**S5.447A**). The 5 091-5 150 MHz band was allocated on a co-primary basis to the FSS for NGSO MSS feeder uplinks under **S5.444A** with the conditions that:

- prior to 1 January 2010, the use of the band 5 091-5 150 MHz by feeder links of non-geostationary-satellite systems in the mobile-satellite service shall be made in accordance with Resolution **114 (WRC-95)**;
- prior to 1 January 2010, the requirements of existing and planned international standard systems for the aeronautical radionavigation service which cannot be met in the 5 000-5 091 MHz band, shall take precedence over other uses of this band;
- after 1 January 2008, no new assignments shall be made to stations providing feeder links of non-geostationary mobile-satellite systems;
- after 1 January 2010, the fixed-satellite service will become secondary to the aeronautical radionavigation service.

There has been very little growth in the MSS industry since the allocation was made. Two MSS systems have implemented spacecraft tracking and control operations and one system has begun commercial service using the 5 091 – 5 150 MHz band for transmitting communications traffic, as well as, command signals, from gateway earth stations to the NGSO spacecraft. These systems are successfully coexisting with the ARNS. Furthermore, civil aviation has not expanded its use to the band 5 091 - 5 150 MHz for MLS. The International Civil Aviation Organization (ICAO) is looking at alternatives to the instrument landing system (such as greater MLS implementation) before an all-weather Global Navigation Satellite System capability is available. There has been successful coordination between the FSS and ARNS based on ITU-R **S.1342**, "Method for determining coordination distances, in the 5 GHz band, between the international standard microwave landing system in the aeronautical radionavigation service and non-geostationary mobile satellite service stations providing feeder uplink services." These studies showed that compatibility between MLS receivers and MSS feeder links (Earth-to-space) could exist if sufficient geographical separation exists between the two stations. As a result, Recommendation **S.1342** was adopted to trigger coordination between the two operators to determine the acceptability of an MSS site, possibly with or without restrictions.

Proposal:

USA/ /1
NOC

S5.444

Reasons: The allocations and conditions specified in the footnote is sufficient to accommodate both the ARNS and FSS for the foreseeable future.

USA/ /2
NOC

S5.444A

Reasons: The allocations and conditions specified in the footnote is sufficient to accommodate both the ARNS and FSS for the foreseeable future.

USA/ /3
MOD

RESOLUTION 114 (WRC-~~95~~03)

Use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite service)

Reasons: Editorial

resolves

1 that the provisions of this Resolution and of Nos. **S5.444** and **S5.444A** shall enter into force on 18 November 1995;

2 that administrations authorizing stations providing feeder links for non-GSO mobile-satellite systems in the frequency band 5 091-5 150 MHz shall ensure that they do not cause harmful interference to stations of the aeronautical radionavigation service;

USA/ /4
MOD

3 that the allocation to the aeronautical radionavigation service and the fixed-satellite service in the frequency band 5 091-5 150 MHz should be reviewed at ~~WRC-01~~a future competent WRC,

Reasons: The dates in the resolution are obsolete. By changing the date to a future competent WRC leaves the option for instructing the ITU-R to study the sharing of the band between MSS feeder links and ARNS at an appropriate time.

urges administrations

1 when authorizing stations of the aeronautical radionavigation service, to assign frequencies giving priority to the band below 5 091 MHz;

2 when assigning frequencies in the band 5 091-5 150 MHz before 1 January 2010 to stations of the aeronautical radionavigation service or to stations of the fixed-satellite service providing feeder links

of the non-GSO mobile-satellite service (Earth-to-space), to take all practicable steps to avoid mutual interference between them,

instructs ITU-R

1 to study the technical and operational issues relating to sharing of this band between the aeronautical radionavigation service and the fixed-satellite service providing feeder links of the non-GSO mobile-satellite service (Earth-to-space);

USA/ /5
MOD

2 to bring the results of these studies to the attention of ~~WRC-01~~a future competent WRC,

Reasons: The dates in the resolution are obsolete. By changing the date to a future competent WRC leaves the option for instructing the ITU-R to study the sharing of the band between MSS feeder links and ARNS at an appropriate time.

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